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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JENS DAVID and JENS BRETSCHNEIDER

Appeal 2009-005010
Application 10/525,688
Technology Center 2100

Decided: September 25, 2009

Before HOWARD B. BLANKENSHIP, ST. JOHN COURTENARY, III,
and THU A. DANG, *Administrative Patent Judges*.

BLANKENSHIP, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1-10, which are all the pending claims. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Invention

Registers and components of programmable systems are initialized by data and programming read from non-volatile memory. *See* Abstract (substitute Specification).

*Representative Claim*¹

1. A method for initializing a programmable system having at least one processor element, registers and internal and/or external modules, the method comprising: the steps of:

after turn-on or other event triggering a fresh start of the programmable system,

(a) transferring initialization information for the processor system from an external or internal non-volatile storage medium to an internal memory coupled to a processor element, under the control of a program stored in an instruction memory portion coupled to the processor element, wherein the initialization information includes at least one initialization program and initialization data; and

(b) reading and transferring initialization data and further initializing the registers and modules under the control of the at least one initialization program transferred into the internal memory portion coupled to the processor element of the programmable system.

¹ The Examiner has objected to missing or unclear proper antecedents in claim 1, which Appellants contend can be corrected by amendments suggested at page 5 of the Appeal Brief.

Prior Art

Branstad	6,519,716	Feb. 11, 2003
Klein	2001/0052067	Dec. 13, 2001

Examiner's Rejections

Claims 1 and 4-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA² and Branstad.

Claims 2 and 3 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over AAPA, Branstad, and Klein.

Claim Groupings

Based on Appellants' arguments in the Appeal Brief, we will decide the appeal on the basis of claim 1, which is the sole independent claim on appeal. *See* 37 C.F.R. § 41.37(c)(1)(vii).

FINDINGS OF FACT

AAPA

OEM-specific information is read from an EEPROM by means of hardware logic.

Branstad

Branstad describes an EEPROM control logic block 50 (Fig. 2) interfaced through a control bus 60 with an EEPROM memory device. The

² Applicants' admission of prior art, (substitute) Specification paragraphs [0003] through [0011] and Figure 1.

EEPROM contains initialization code 62, which is retrieved by block 50 and executed by microcontroller 42 to initialize I/O adaptor 20 to a known operational state. Col. 5, ll. 16-23.

PRINCIPLES OF LAW

“[W]hen a patent ‘simply arranges old elements with each performing the same function it had been known to perform’ and yields no more than one would expect from such an arrangement, the combination is obvious.” *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 417 (2007) (quoting *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 282 (1976)). The operative question is “whether the improvement is more than the predictable use of prior art elements according to their established functions.” *Id.*

Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references. *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) (citing *In re Keller*, 642 F.2d 413, 425 (CCPA 1981)).

ANALYSIS

We refer to, and rely on, the Examiner’s findings and conclusions set out in the Final Rejection and the Answer. Our discussion will be limited to points raised by Appellants in the briefs.

In response to the rejection of claim 1, Appellants allege (App. Br. 11-13) various deficiencies in AAPA and Branstad, when considered separately. However, even some of the asserted individual deficiencies do not appear to be supported by the evidence.

For example, Appellants allege that the EEPROM Control Logic Block 50 described by Branstad is “non-programmable.” Appellants do not, however, tell where Branstad describes logic block 50 as “non-programmable.”³ Appellants also allege that “Branstad’s bus 60 and EEPROM 58 are configured in an unchangeable fixed format, and are therefore comparable with the fixed wired hardware as described in AAPA.” (App. Br. 13.) Appellants do not, however, tell where Appellants describe the bus 15 (instant Fig. 2) and storage medium (EEPROM) 14 as something other than “fixed wired hardware.”

In any event, Appellants indicate that the combination of AAPA and Branstad does not teach transferring initialization information “under the control of a program stored in an instruction memory portion coupled to the processor element” as claimed. This “essential feature” of claim 1, according to Appellants, is not disclosed by Branstad. (App. Br. 14.)

However, the Examiner’s rejection does not rely on Branstad for the teaching, but on the AAPA teaching of instruction memory portion 9. (Final Rej. 3; Ans. 3.) The rejection turns to Branstad for initialization information beyond the AAPA initialization data, such that the information includes an

³ Sometime during the interval between the Appeal Brief and the Reply Brief, the Branstad logic block became “hardwired.” See Reply Br., page “iii.” Branstad at column 5, lines 19 through 23, does not describe the control block logic as either of “non-programmable” or “hardwired.”

initialization program, consistent with instant claim 1. Appellants have thus not responded to the rejection that has been made.⁴

Appellants had another opportunity in the Reply Brief to show error in the Examiner's finding with respect to AAPA instruction memory 9, but made no attempt to do so.

Appellants have therefore not demonstrated error in the Examiner's rejection of claim 1, nor in the rejection of any claim on appeal.

Moreover, Appellants' position appears based on the asserted non-obviousness of replacing hardware with software. Implementing hardware functions in software has been used increasingly in the electrical arts, for the widely recognized flexibility associated with software versus hardware solutions.

If a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *KSR*, 550 U.S. at 417. Appellants have provided no evidence tending to show that implementing (prior art)

⁴ In the list of individual alleged deficiencies, Appellants submit that AAPA does not teach a program for controlling the transfer of initialization information (App. Br. 11-12), but do not address the Examiner's finding to the contrary. Appellants do not, for example, provide any reasoning in support of why AAPA instruction memory 9 does not contain a program to facilitate transfer of AAPA data for initialization. Moreover, since the "program" and "initialization information" are both part of the alleged deficiency, the allegation bridging pages 11 and 12 of the Appeal Brief could indicate that AAPA does not describe the "initialization information" now claimed, which the Examiner does not dispute.

hardware initialization functions in software was “uniquely challenging or difficult for one of ordinary skill in the art.” *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR*, 550 U.S. at 419).

DECISION

The rejection of claims 1 and 4-10 under 35 U.S.C. § 103(a) as being unpatentable over AAPA and Branstad is affirmed.

The rejection of claims 2 and 3 under 35 U.S.C. § 103(a) as being unpatentable over AAPA, Branstad, and Klein is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 41.50(f).

AFFIRMED

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